L Number	Hits	Search Text	DB	Time stamp
1	845	dtmf adj2 decoder	USPAT;	2004/07/05 14:52
			US-PGPUB;	
			EPO; JPO	
2	845	(dtmf adj2 decoder) and ad@<=20020124	USPAT;	2004/07/05 14:52
	_		US-PGPUB;	
			EPO; JPO	
3	477546	amplifier	USPAT;	2004/07/05 14:52
	1,7,510		US-PGPUB;	200 110 1103 14.32
			EPO; JPO	
4	109	(dtmf adj2 decoder) same amplifier		2004/07/05 14:53
	109	(duit adj2 decoder) same ampinter	USPAT;	2004/07/03 14:33
			US-PGPUB;	
_	501077	ann an marana an 11 aight a 11 1 a 12	EPO; JPO	2004/07/05 15 02
6	591077	cpu or processor or digital adj logic	USPAT;	2004/07/05 15:03
_	7.	// C VO 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	EPO; JPO	
7	76	((dtmf adj2 decoder) same amplifier) and (cpu or processor or digital adj	USPAT;	2004/07/05 15:04
		logic)	ЕРО; ЈРО	
. 8	165559	analog adj3 digital adj2 converter or "a/d" or codec	USPAT;	2004/07/05 15:04
į			ЕРО; ЈРО	
9	15	(((dtmf adj2 decoder) same amplifier) and (cpu or processor or digital	USPAT;	2004/07/05 15:04
		adj logic)) and (analog adj3 digital adj2 converter or "a/d" or codec)	ЕРО; ЛРО	
10	1	"6195421".PN.	USPAT	2004/07/05 15:06
-	736	379/216.01,355.01-355.1.ccls.	USPAT;	2004/02/02 17:30
			ЕРО; ЛРО	
-	862	379/216.01,355.01-356.01.ccls.	USPAT;	2004/02/02 17:29
		<b>,</b>	ЕРО; ЈРО	
_	8961	(abbreviat\$3 or speed) near3 (dial\$3 or number).ab,ti.	USPAT;	2004/02/02 18:59
I		( and by the state of the state	ЕРО; ЛРО	200 1102/02 10.57
_	74	379/216.01,355.01-356.01.ccls. and ((abbreviat\$3 or speed) near3	USPAT;	2004/02/02 17:31
		(dial\$3 or number).ab,ti.)	EPO; JPO	2004/02/02 17.51
_	2782	automat\$3 near5 updat\$3	USPAT;	2004/02/02 17:32
	2702	automatus mears upuatus		2004/02/02 17:32
	3	(270/216 01 255 01 256 01 colo and ((abbreviat@2 on enced) acces	ЕРО; ЛО	2004/02/02 17:42
-	3	(379/216.01,355.01-356.01.ccls. and ((abbreviat\$3 or speed) near3	USPAT;	2004/02/02 17:43
	2670	(dial\$3 or number).ab,ti.)) and (automat\$3 near5 updat\$3)	ЕРО; ЛРО	
-	2579	(time near5 call\$3) with count\$3	USPAT;	2004/02/02 17:44
	2006	(02 57 1102 1 ) (11 102	ЕРО; ЛРО	<b></b>
- 1	3006	repeat\$3 near5 (call\$3 or number) with count\$3	USPAT;	2004/02/02 17:44
	5505		ЕРО; ЛРО	
-	5507	((time near5 call\$3) with count\$3) or (repeat\$3 near5 (call\$3 or	USPAT;	2004/02/02 17:44
ŀ		number) with count\$3)	ЕРО; ЛРО	
-	29	379/216.01,355.01-356.01.ccls. and (((time near5 call\$3) with count\$3)	USPAT;	2004/02/02 17:50
		or (repeat\$3 near5 (call\$3 or number) with count\$3))	ЕРО; ЈРО	
-	1811	automat\$3 near2 updat\$3	USPAT;	2004/02/02 17:51
			ЕРО; ЈРО	
-	1	(379/216.01,355.01-356.01.ccls. and (((time near5 call\$3) with count\$3)	USPAT;	2004/02/02 18:18
		or (repeat\$3 near5 (call\$3 or number) with count\$3))) and (automat\$3	ЕРО; ЛРО	
		near2 updat\$3)		
- 1	87	(programm\$3 or updat\$3) near2 speed near2 dial\$3	USPAT;	2004/02/02 18:19
			ЕРО; ЛРО	
- 1	21	(((time near5 call\$3) with count\$3) or (repeat\$3 near5 (call\$3 or	USPAT;	2004/02/02 18:19
		number) with count\$3)) and ((programm\$3 or updat\$3) near2 speed	ЕРО; ЛРО	200 1102102 10:17
		near2 dial\$3)	2, 5, 51 0	
_	2	379/216.01,355.01-356.01.ccls. and ((((time near5 call\$3) with count\$3)	USPAT;	2004/02/02 18:19
_	2	or (repeat\$3 near5 (call\$3 or number) with count\$3)) and ((programm\$3		2004/02/02 18.19
		or updat\$3) near2 speed near2 dial\$3))	ЕРО; ЈРО	
	0034		TIODAT	2004/02/02 10 00
-	9034	((abbreviat\$3 or speed) near3 (dial\$3 or number).ab,ti.) or	USPAT;	2004/02/02 19:00
	0.5	((programm\$3 or updat\$3) near2 speed near2 dial\$3)	EPO; JPO	0004/02/22
-	87	((programm\$3 or updat\$3) near2 speed near2 dial\$3) and (((abbreviat\$3	USPAT;	2004/02/02 19:00
		or speed) near3 (dial\$3 or number).ab,ti.) or ((programm\$3 or updat\$3)	ЕРО; ЈРО	
j		near2 speed near2 dial\$3))		
-	6225	outg\$5 near2 call\$3	USPAT;	2004/02/02 19:01
			ЕРО; ЈРО	i

-	10	"5734712" and predeterm\$5	USPAT;	2004/06/25 14:02
-	1	"6119090" and output\$3	EPO; JPO USPAT;	2004/06/25 13:23
-	1	"6119090" and reference	EPO; JPO USPAT;	2004/06/25 13:24
-	0	"6119090" and exceed\$1	EPO; JPO USPAT;	2004/06/25 13:34
-	0	"6119090" and final	EPO; JPO USPAT;	2004/06/25 13:34
-	3	"6119090" and relat\$3	EPO; JPO USPAT;	2004/06/25 13:39
-	3	"6119090" and resistor	EPO; JPO USPAT; EPO; JPO	2004/06/25 13:41
-	3	"6119090" and capacitor	USPAT; EPO; JPO	2004/06/25 13:41
-	0	"5734712" and compar\$3 near input	USPAT; EPO; JPO	2004/06/25 14:03
-	3	"5734712" and (compar\$3 near5 input)	USPAT; EPO; JPO	2004/06/25 14:03
-	9	"5734712" and (compar\$3)	USPAT; EPO; JPO	2004/06/25 14:04
-	9	"5734712" and (compar\$3) and predeterm\$5	USPAT; EPO; JPO	2004/06/25 14:07
-	0	"5734712" and final\$1	USPAT; EPO; JPO	2004/06/25 14:08
-	6	"5734712" and exceed\$1	USPAT; EPO; JPO	2004/06/25 14:09
-	1017	dtmf with decoder	USPAT; EPO; JPO	2004/07/05 16:20
-	696817	amplifier or driver	USPAT; EPO; JPO	2004/07/05 10:24
-	44927	"adc" or analog adj digital adj converter	USPAT; EPO; JPO	2004/07/05 10:24
-	591077	cpu or processor or digital adj logic	USPAT; EPO; JPO	2004/07/05 10:25
-	2466	(amplifier or driver) same ("adc" or analog adj digital adj converter) same (cpu or processor or digital adj logic)	USPAT; EPO; JPO	2004/07/05 10:00
-	1	(dtmf with decoder) same ((amplifier or driver) same ("adc" or analog adj digital adj converter) same (cpu or processor or digital adj logic))	USPAT; EPO; JPO	2004/07/05 10:00
-	8784		USPAT; EPO; JPO	2004/07/05 10:02
-	24	((amplifier or driver) same ("adc" or analog adj digital adj converter) same (cpu or processor or digital adj logic)) same dtmf	USPAT; EPO; JPO	2004/07/05 10:04
-	98746	tip and ring	USPAT; EPO; JPO	2004/07/05 10:55
-	1	(dtmf with decoder) and (((amplifier or driver) same ("adc" or analog adj digital adj converter) same (cpu or processor or digital adj logic))	USPAT; EPO; JPO	2004/07/05 10:05
-	2	and (tip and ring)) (((amplifier or driver) same ("adc" or analog adj digital adj converter)	USPAT;	2004/07/05 10:05
-	107	same (cpu or processor or digital adj logic)) and (tip and ring)) and dtmf ((amplifier or driver) same ("adc" or analog adj digital adj converter)	EPO; JPO USPAT;	2004/07/05 10:09
-	10943	same (cpu or processor or digital adj logic)) and (tip and ring) reshap\$3	EPO; JPO USPAT;	2004/07/05 11:13
-	2	(tip and ring) and (((amplifier or driver) same ("adc" or analog adj digital adj converter) same (cpu or processor or digital adj logic)) and	EPO; JPO USPAT; EPO; JPO	2004/07/05 10:09
-	62	dtmf) ((amplifier or driver) same ("adc" or analog adj digital adj converter)	USPAT;	2004/07/05 10:12
-	100161	same (cpu or processor or digital adj logic)) and dtmf land (tip and ring)	EPO; JPO USPAT;	2004/07/05 10:12
-	222	(dtmf with decoder) and (tip and ring)	EPO; JPO USPAT; EPO; JPO	2004/07/05 10:12
			LL 0, 31 0	

-	171	((dtmf with decoder) and (tip and ring)) and (amplifier or driver)	USPAT; EPO; JPO	2004/07/05 10:13
-	8	(((dtmf with decoder) and (tip and ring)) and (amplifier or driver)) and ("adc" or analog adj digital adj converter)	USPAT; EPO; JPO	2004/07/05 10:13
-	8	(cpu or processor or digital adj logic) and ((((dtmf with decoder) and (tip and ring)) and (amplifier or driver)) and ("adc" or analog adj digital adj converter))	USPAT; EPO; JPO	2004/07/05 10:13
-	477546	amplifier	USPAT; US-PGPUB;	2004/07/05 11:14
-	55378	"adc" or analog adj digital adj converter	EPO; JPO USPAT; US-PGPUB; EPO; JPO	2004/07/05 11:06
-	2766	amplifier same ("adc" or analog adj digital adj converter) same (cpu or processor or digital adj logic)	USPAT; US-PGPUB; EPO; JPO	2004/07/05 10:25
-	7	(dtmf adj2 decoder) and (amplifier same ("adc" or analog adj digital adj converter) same (cpu or processor or digital adj logic))	USPAT; US-PGPUB; EPO; JPO	2004/07/05 10:25
-	73497	379/\$.ccls.	USPAT; EPO; JPO	2004/07/05 10:32
-	413	(dtmf adj2 decoder) and 379/\$.ccls.	USPAT; EPO; JPO	2004/07/05 10:32
-	133	(tip and ring) and ((dtmf adj2 decoder) and 379/\$.ccls.)	USPAT; EPO; JPO	2004/07/05 10:32
-	2685	("adc" or analog adj digital adj converter) and ((tip and ring) and ((dtmf adj2 decoder) and 379/\$.ccls.)) dtmf.ab,ti.	USPAT; EPO; JPO USPAT;	2004/07/05 10:36 2004/07/05 10:42
			US-PGPUB; EPO; JPO	2004/07/03 10.42
-	3	(amplifier same ("adc" or analog adj digital adj converter) same (cpu or processor or digital adj logic)) and dtmf.ab,ti.	USPAT; US-PGPUB; EPO; JPO	2004/07/05 10:42
-	7	("4085295"   "4853958"   "4868872"   "5119322"   "5214693"   "5392348"   "5408529").PN.	USPAT	2004/07/05 10:47
-	700	dtmf adj2 detector or dual adj tone adj detector	USPAT; US-PGPUB; EPO; JPO	2004/07/05 10:51
-	20	(amplifier same ("adc" or analog adj digital adj converter) same (cpu or processor or digital adj logic)) and (dtmf adj2 detector or dual adj tone adj detector)	USPAT; US-PGPUB; EPO; JPO	2004/07/05 10:51
-	118302	tip and ring	USPAT; US-PGPUB; EPO; JPO	2004/07/05 10:55
-	166	(dtmf adj2 detector or dual adj tone adj detector) and (tip and ring)	USPAT; US-PGPUB; EPO; JPO	2004/07/05 10:58
-	93	((dtmf adj2 detector or dual adj tone adj detector) and (tip and ring)) and amplifier	USPAT; US-PGPUB; EPO; JPO	2004/07/05 11:02
-	4	(((dtmf adj2 detector or dual adj tone adj detector) and (tip and ring)) and amplifier) and ("adc" or analog adj digital adj converter)	USPAT; US-PGPUB; EPO; JPO	2004/07/05 11:02
-	23	("4041252"   "4278847"   "4333133"   "4368361"   "4388500"   "4567331"   "4787080"   "4812851"   "4918725"   "4961218"   "4987569"   "5034978"   "5132963"   "5204854"   "5249225"   "5253291"   "5280526"   "5287406"   "5333194"   "5434916"   "5504811"   "5533119"   "6343126").PN.	USPAT	2004/07/05 11:03
-	68531	"adc" or analog adj digital adj converter or codec	USPAT; US-PGPUB; EPO; JPO	2004/07/05 11:07
-	185	(dtmf adj2 detector or dual adj tone adj detector) and ("adc" or analog adj digital adj converter or codec)	USPAT; US-PGPUB; EPO; JPO	2004/07/05 11:07
			Ero, iro	

-	92	amplifier and (cpu or processor or digital adj logic) and ((dtmf adj2	USPAT:	2004/07/05 11:08
		detector or dual adj tone adj detector) and ("adc" or analog adj digital	US-PGPUB;	200 11000
		adj converter or codec))	ЕРО; ЈРО	
-	24	(tip and ring) and (amplifier and (cpu or processor or digital adj logic)	USPAT;	2004/07/05 11:08
		and ((dtmf adj2 detector or dual adj tone adj detector) and ("adc" or	US-PGPUB;	
		analog adj digital adj converter or codec)))	ЕРО; ЛРО	
-	13740	reshap\$3	USPAT;	2004/07/05 11:13
			US-PGPUB;	
			ЕРО; ЈРО	
-	635	amplifier same reshap\$3	USPAT;	2004/07/05 11:14
			US-PGPUB;	
			ЕРО; ЈРО	
-	37674	invert\$3 and non-invert\$3	USPAT;	2004/07/05 11:15
			US-PGPUB;	
			ЕРО; ЈРО	
-	51	(amplifier same reshap\$3) and (invert\$3 and non-invert\$3)	USPAT;	2004/07/05 11:15
			US-PGPUB;	
	_	// 1/7	ЕРО; ЈРО	
-	2	((amplifier same reshap\$3) and (invert\$3 and non-invert\$3)) and ("adc"	USPAT;	2004/07/05 11:15
		or analog adj digital adj converter or codec)	US-PGPUB;	
			ЕРО; ЈРО	

## **Patent Assignment Abstract of Title**

**Total Assignments: 1** 

**Application #:** 10064641 Filing Dt: 08/01/2002 Patent #: NONE **Issue Dt:** 

PCT #: NONE Publication #: <u>US20030235292</u> Pub Dt: 12/25/2003

Inventor: George Cheng

Title: Dual tone multi-frequency decoder combines software and hardware and method of

operating the same

Assignment: 1

**Reel/Frame:** 012947/0758 Received: 08/02/2002 Recorded: Mailed: Pages:

08/02/2002 08/02/2002

Conveyance: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

Assignor: CHENG, GEORGE Exec Dt: 07/16/2002

Assignee: SINO WEALTH ELECTRONIC (SHANGHAI) LTD.

NO.132, TIAN LIN ROAD SHANGHAI, CHINA

Correspondent: JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE

7 FLOOR-1, NO. 100

ROOSEVELT ROAD, SECTION 2

TAIPEI, TAIWAN 100

Search Results as of: 7/5/2004 3:10:56 P.M.

If you have any comments or questions concerning the data displayed, contact OPR / Assignments at 703-308-9723 Web interface last modified: Oct. 5, 2002